

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO.
NPDES NO. CA0079316
FOR

PLACER COUNTY DEPARTMENT OF FACILITY SERVICES
PLACER COUNTY SEWER MAINTENANCE DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
PLACER COUNTY

This Monitoring and Reporting Program is issued pursuant to Water Code Section 13383. The Discharger shall not implement any changes to this Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program. Specific sample station locations shall be established under direction of the Regional Board's staff, and a description of the stations shall be attached to this Order.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Water supply monitoring results shall be submitted annually. Water supply monitoring shall include at least the following:

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>SAMPLING FREQUENCY</u>
Total Dissolved Solids (TDS)	mg/l	Yearly
Electrical Conductivity (EC) at 25°C ¹	μmhos/cm	Yearly

¹ If the source water is from more than one source, the EC shall be reported as a weighted average and include copies of supporting calculations.

INFLUENT MONITORING

Samples shall be collected at approximately the same time as effluent samples and should be representative of the influent. Influent monitoring shall include at least the following:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>SAMPLE TYPE</u>	<u>SAMPLING FREQUENCY</u>
Flow	mgd	Meter	Continuous
BOD ¹	mg/l, lbs/day	24 hr. Composite ²	5 Days/Week
Total Suspended Solids (TSS)	mg/l, lbs/day	24 hr. Composite ²	5 Days/Week

¹ 5-day, 20° C biochemical oxygen demand (BOD)

² 24-hour composite samples shall be flow proportional

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

TABLE 1

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLING FREQUENCY</u>
Flow	MGD	Meter	Continuous ¹
Turbidity ²	NTU	Meter	Continuous ¹
Chlorine Residual	mg/l	Meter	Continuous ¹
Temperature	°F	Grab ³	Daily
Settleable Solids	ml/l	Grab ³	Daily
Electrical Conductivity @ 25°C	µmhos/cm	Grab ³	Daily
pH	--	Grab ³	Daily
Total Coliform Organisms	MPN/100 ml	Grab ³	Daily
Total Ammonia ^{4,5}	mg/l, lbs/day	Grab ³	Daily
Total Nitrate plus Nitrate (as N)	mg/l, lbs/day	Grab ³	Daily
Nitrite	mg/l, lbs/day	Grab ³	Daily
BOD ⁶	mg/l, lbs/day	24-Hr Composite ⁷	5 Days/Week
Total Suspended Solids	mg/l, lbs/day	24-Hr Composite ⁷	5 Days/Week
Total Dissolved Solids	mg/l, lbs/day	Grab	Monthly
Oil and Grease	mg/l, lbs/day	Grab	Quarterly
Acute Toxicity ^{8,9}	% Survival	Grab	Quarterly

¹ For continuous monitoring, the daily maximum, minimum, and average shall be reported.

² Collected from outfall of gravity filters.

³ Daily Grab samples shall **not** be collected at the same time each day.

⁴ Concurrent with Acute Toxicity monitoring, Temperature, and pH.

⁵ Report as Total Ammonia.

⁶ 5-Day, 20°C Biochemical Oxygen Demand (BOD)

⁷ 24-Hour Composite samples shall be flow-proportional.

⁸ In October 2002, U.S. EPA promulgated new toxicity test methods. The acute toxicity bioassay samples shall be analyzed using *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, EPA/821-R-02-012, or later amendment with Board staff approval. Temperature and pH shall be recorded at the time of bioassay sample collection. Test species shall be fathead minnows (*Pimephales promelas*), with no pH adjustment.

⁹ Concurrent with Ammonia sampling.

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TABLE 2

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLING FREQUENCY</u>
Aluminum ^{10, 11}	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Copper ^{10, 11, 12}	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Iron ¹⁰	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Lead ^{10, 11, 12}	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Manganese ¹⁰	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Mercury ¹³	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Silver ^{10, 11, 12}	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Tributyltin	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Zinc ^{10, 11, 12}	µg/l, lbs/day	24-Hr Composite ⁷	Quarterly
Bis(2-ethylhexyl)phthalate	µg/l, lbs/day	Grab	Quarterly
Bromodichloromethane	µg/l, lbs/day	Grab	Quarterly
Chlorinated Hydrocarbon Pesticides	µg/l, lbs/day	Grab	Quarterly
Chloroform	µg/l, lbs/day	Grab	Quarterly
MTBE	µg/l, lbs/day	Grab	Quarterly
Alachlor	µg/l, lbs/day	Grab	Quarterly
Atrazine	µg/l, lbs/day	Grab	Quarterly
Dioxins and Furans	µg/l, lbs/day	Grab	Quarterly
PAEs	µg/l, lbs/day	Grab	Quarterly
PCBs (all Aroclors)	µg/l, lbs/day	Grab	Quarterly
PCB Aroclor 1016 ¹¹	µg/l, lbs/day	Grab	Quarterly
PCB Aroclor 1221 ¹¹	µg/l, lbs/day	Grab	Quarterly
PCB Aroclor 1260 ¹¹	µg/l, lbs/day	Grab	Quarterly
Priority Pollutants ^{10, 11, 14, 15, 16, 18}	mg/l	As Appropriate ^{7, 17}	Annually

⁷ 24-Hour Composite samples shall be flow-proportional.

¹⁰ Total Recoverable Metals

¹¹ If any single sample exceeds the 4-Day Average Effluent Limitation, the Discharger shall conduct additional sampling for 4 consecutive days for those constituents that exceeded the 4-Day Average.

¹² Concurrent with Hardness

¹³ Clean Laboratory Techniques

¹⁴ Concurrent with Hardness, Temperature, and pH

¹⁵ All peaks are to be reported, along with any explanation provided by the laboratory.

¹⁶ Priority Pollutants is defined as U.S. EPA Priority Pollutants and consists of the constituents listed in the most recent National Toxics Rule and California Toxics Rule and identified in the 13267 letter dated 9/10/01.

¹⁷ Volatile samples shall be grab samples, the remainder shall be 24-Hour Composite samples.

¹⁸ Includes constituents listed in Finding No. 43 of Order No. _____, as follows: Cadmium, Chromium (VI), Silver, Phosphorus, Sulfide, 1,1-Dichloroethene, 1,1,2,2-Tetrachloroethane, 1,2-Dichloroethane, Acrylonitrile, Carbon Tetrachloride, Dibromochloromethane, Hexachlorobenzene, Hexachlorobutadiene, 1,2-Benzanthracene, 1,2-Diphenylhydrazine, 2-Chlorophenol, 2,4-Dichlorophenol, 2,4-Dinitrotoluene, 2,4,6-Trichlorophenol, 2,6-Dinitrotoluene, 3,3-Dichlorobenzidine, 3,4-Benzofluoranthene, Benzo(a)pyrene, Benzo(k)fluoranthene, Bis(2-chloroethyl)ether, Bis(2-ethylhexyl)phthalate, Butyl benzyl phthalate, Chrysene, Di-n-butylphthalate, Di-n-octylphthalate, Dibenzo(a,h)-anthracene, Hexachlorocyclopentadiene, Indeno(1,2,3-c,d)pyrene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, 4,4-DDD, 4,4-DDE, 4,4-DDT, alpha-Hexachlorocyclohexane (BHC), Aldrin, Chlordane, Dieldrin, Heptachlor, Heptachlor Epoxide, PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260, Toxaphene, Atrazine, Carbofuran, DBCP, Diquat, Ethylene Dibromide, Simazine (Princep), 2,3,7,8-TCDD (Dioxin), Diazinon, Chlorpyrifos.

TABLE 3 – Additional Effluent Monitoring when bypassing filters, flow > 3.5 MGD, and 7-Day Median Receiving Water Temperature < 60 °F

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLING FREQUENCY</u>
Filter Effluent Flow	MGD	Meter	Continuous ¹
Chlorine Contact Basin Influent Flow	MGD	Meter	Continuous ¹
Turbidity from Effluent Outfall	NTU	Meter	Continuous ¹

¹ For continuous monitoring, the daily maximum, minimum, and average shall be reported.

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples.

- Receiving water monitoring shall include at least the following:

<u>Station</u>	<u>Description</u>
R-1	Rock Creek, 50 feet upstream from the point of discharge
R-2	Rock Creek, just prior to the confluence of Rock Creek and Dry Creek
R-3	Dry Creek, just prior to the confluence of Rock Creek and Dry Creek
R-4	Dry Creek, 150 feet downstream of the confluence of Rock Creek and Dry Creek

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>STATION</u>	<u>SAMPLING FREQUENCY</u>
Dissolved Oxygen	mg/l	R-1, R-2, R-3, R-4	Daily
PH	--	R-1, R-2, R-3, R-4	Daily
Turbidity	NTU	R-1, R-2, R-3, R-4	Daily
Temperature ¹	°C	R-1, R-2, R-3, R-4	Daily
Electrical Conductivity @25°C	µmhos/cm	R-1, R-2, R-3, R-4	Daily
Fecal Coliform Organisms	MPN/100 ml	R-1, R-2, R-3, R-4	Monthly
Radionuclides	pCi/l	R-1, R-2, R-3, R-4	Annually

¹ Between 1 October and 1 May, Discharger shall calculate and report the 7-Day Median Temperature for R-1 and R-3. The 7-Day Median is based on previous seven daily sample results.

- Additional Receiving Water Monitoring when bypassing filters, flow > 3.5 MGD, and 7-Day Median Receiving Water Temperature < 60 °F:

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<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>STATION</u>	<u>SAMPLING FREQUENCY</u>
Total Coliform Organisms	MPN/100 ml	R-1, R-2, R-3, R-4	Daily
<i>Escherichia coli</i>	MPN/100 ml	R-1, R-2, R-3, R-4	Daily
Salmonella Organisms	MPN/100 ml	R-1, R-2, R-3, R-4	Daily

3. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2, and R-3, and R-4. Attention shall be given to the presence or absence of:

- | | |
|---------------------------------|--|
| a. Floating or suspended matter | e. Visible films, sheens or coatings |
| b. Discoloration | f. Fungi, slimes, or objectionable growths |
| c. Bottom deposits | g. Potential nuisance conditions |
| d. Aquatic life | |

Notes on receiving water conditions shall be summarized in the monitoring report.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to Rock Creek and Dry Creek. Chronic Toxicity Monitoring shall be conducted on Rock Creek and Dry Creek concurrently. In October 2002, U.S. EPA promulgated new Toxicity Test Methods. The Chronic Toxicity testing shall be conducted as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, EPA/21-R-02-013, or later amendment with Board staff approval. Chronic toxicity samples shall be collected at the discharge of the WWTP prior to its entering Rock Creek. Twenty-four-hour composite samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. The effluent tests must be conducted with concurrent reference toxicant tests. Monthly laboratory reference toxicant tests may be substituted upon approval. The control water, or standard dilution water, shall be provided by the laboratory or collected from the potable water supply at the facility. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test as soon as possible after being notified by the laboratory, but not later than 14 days.

Chronic toxicity monitoring results are to be submitted quarterly. Chronic toxicity monitoring shall include the following:

Species:	<i>Pimephales promelas</i> (larval stage), <i>Ceriodaphnia dubia</i> , and <i>Selenastrum capricornutum</i>
Frequency:	Once per quarter, four quarters per year
Dilution Series:	None

SLUDGE MONITORING

A composite sample of sludge shall be collected annually, and tested for the following metals:

Arsenic	Cyanide	Nickel
Cadmium	Lead	Silver
Chromium	Mercury	Zinc
Copper	Molybdenum	

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

By 30 January 2003, and annually thereafter, the Discharger shall submit:

- a. Annual sludge production in dry tons and percent solids.
- b. A schematic diagram showing sludge handling facilities and a solids flow diagram.
- c. Depth of application and drying time for sludge drying beds.
- d. A description of disposal methods. If more than one method is used, include the percentage of annual sludge production disposed by each method.

REPORTING

Monitoring results shall be submitted to the Regional Board by the **first day of the second month following sample collection**. Quarterly and annual monitoring results shall be submitted by the **first day of the second month following each calendar quarter, semi-annual period, and year**, respectively.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the time and date of sample collection, the constituents, and the concentrations are readily discernible. The data shall be summarized to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages and medians, and removal efficiencies (%) for BOD and Suspended Solids, should be determined and recorded. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **30 January** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:

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- a. The names, certificate grades, and general responsibilities of all persons employed at the WWTP (Standard Provision A.5).
- b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
- c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

The Discharger may also be requested to submit an annual report to the Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

(Date)